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## Twin problems of climate change and air pollution

*New report urges action on both to maximise benefits for health*

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The UK is unique in having incorporated a target for reducing greenhouse gases into primary legislation—the Climate Change Act of 2008. The ambitious goal to reduce CO<sub>2</sub> equivalents by 80% by 2025 compared with 1990, although admirable, has the potential to be a game changer in either a positive or a disastrously negative way. If the right choices are made, achieving this target could result in large improvements in urban air quality—a leading contributor to poor health in the UK. But the wrong choices could lead to further deterioration in air quality, as seen after the increased use of diesel for road transport.<sup>1</sup> A further poor choice would be to replace oil and coal as fuels with wood or biomass. Although biomass absorbs CO<sub>2</sub> from the atmosphere as it grows, its combustion emits large amounts of harmful particles.<sup>2</sup>

Given that ambient air quality is recognised to be the second largest challenge to public health (smoking still leads the pack),<sup>3</sup> it would be catastrophic if the wrong decisions were made again in trying to deal with climate change.<sup>4</sup> Recognising the importance of these issues and the inextricable overlap between climate change and air quality, a report from the UK Health Alliance on Climate Change, an organisation launched in April 2016 representing doctors, nurses, and allied healthcare professionals, considers how integrated strategies could tackle both these challenges.<sup>5 6</sup>

The report covers a lot of ground and makes several ambitious recommendations such as urging better collaboration between agencies and government departments, key targets for cutting CO<sub>2</sub> and improving air quality, coping with Brexit, and encouraging health professionals to do more. Although not all new, these recommendations, if achieved, would go a long way towards decarbonising the UK energy and transport sectors and ensure benefits throughout the health system.

Calls for the government to increase cross-departmental collaboration have been made previously, especially by the parliamentary Environmental Audit Committee,<sup>4</sup> and some progress was made earlier this year when the Department for Transport and Department for Environment, Farming and Rural Affairs began working together on air pollution. This move

alone, however, is unlikely to be enough because policies on air quality are spread across several departments, including the Treasury, whose vehicle tax regime has pushed car owners towards diesel, an action that should be reversed quickly. Likewise, expanding existing clean air zones and setting up new ones in other cities is a central plank of the government's plans to bring NO<sub>2</sub> emissions under control. In principal, clean air zones, designed to restrict the most polluting vehicles, should be pivotal to improving urban air quality. However, emission controls in London's large low emission zone (LEZ) are so unambitious that it has been largely ineffective.<sup>7</sup>

Other calls by the alliance, such as phasing out coal powered power stations by 2025, seem simple, but delivery will be difficult, arguably impossible, given recent delays over replacing old nuclear facilities. The alliance's call for better monitoring of air pollution near schools, hospitals, and other critical areas is also unlikely to be achieved. If anything, local and central government are looking to cut monitoring networks to save money, not expand them, despite the vital information they provide about locations where air quality guidelines are exceeded. Increased ownership of smart phones and development of bespoke apps for disseminating air quality information has led to much greater public awareness of the problem in London. This capability should be rolled out across the UK.<sup>8</sup>

The report also asks that current EU air quality standards are retained or improved after Brexit. Given the government's rather laissez faire attitude to air quality but more gung-ho approach to climate change there is good reason to worry that air quality will lose out when decision are made. Finally, the report focuses on the knowledge deficit among health professionals and recognises the need to inform and support them to take action and advise patients about the health consequences of both air pollution and climate change. The NHS has borne the brunt of health costs associated with air pollution and will benefit directly from improved air quality. For that reason alone the health sector should take a more active role in the decision making process that drives change.

Together, these recommendations go some way towards addressing the joint challenges of air pollution and climate change and, if implemented, will lead to better population health and cost savings for the NHS. However, achieving any of these goals will require a concerted effort by a range of government and non-government agencies. Progress against set objectives must be monitored to ensure delivery, although it's not yet clear how this will be done. The Environmental Audit Committee has already chided the government for its lack of action on air pollution several times and has largely been ignored—what hope is there that

the UK Health Alliance will do any better? If progress remains slow, we must keep up the pressure and the search for new initiatives. Watching and waiting is not an option.

Competing interests: I have read and understood BMJ policy on declaration of interests and declare that I chaired the launch event for the UK Health Alliance report but had no role in the content.

Provenance and peer review: Commissioned, not externally peer reviewed.

<other>1 Vidal J. The rise of diesel in Europe: the impact on health and pollution. *Guardian* 2015 Sep 22. <https://www.theguardian.com/environment/2015/sep/22/the-rise-diesel-in-europe-impact-on-health-pollution></other>

<jrn>2 Ramanathan V, Haines A. Healthcare professionals must lead on climate change. *BMJ* 2016;355:i5245. doi:10.1136/bmj.i5245. *PubMed*</jrn>

<eref>3 Royal College of Physicians, Royal College of Paediatrics and Child Health Every breath we take. The lifelong impact of air pollution. 2016. <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution></eref>

<eref>4 Environmental Audit Committee. Sixth report. Action on air quality. 2014. <http://www.publications.parliament.uk/pa/cm201415/cmselect/cmenvaud/212/21209.htm></eref>

<eref>5 UK Alliance on Climate Change. A breath of fresh air: addressing climate change and air pollution together for health. 2016. <http://www.ukhealthalliance.org/wp-content/uploads/2016/10/UK-Health-Alliance-A-Breath-of-Fresh-Air-Final-Report.pdf></eref>

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<jrn>7 Wood HE, Marlin N, Mudway IS, et al. Effects of air pollution and the introduction of the London low emission zone on the prevalence of respiratory and allergic symptoms in schoolchildren in East London: a sequential cross-sectional study. *PLoS One* 2015;10:e0109121. *PubMed* doi:10.1371/journal.pone.0109121</jrn>

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